http://www.delta.com.tw/industrialautomation/

DOP *Extension Ethernet Module*

Instruction Sheet

Warning

- ✓ *Please read this instruction carefully before use.*
- ✓ *This instruction provides the information of specifications, installation and basic operation and settings. Regarding the Ethernet Networking protocols supported by DOP-EXLNHJ1AE, there is no detailed information available on this instruction. If the users need complete information of Ethernet Networking protocols, please refer to relevant professional articles and books.*
- ✓ *DOP series Extension Ethernet Module should be used with DOP-AE series HMI product. Ensure to switch off the power before wiring.*
- ✓ *Please install this DOP series Extension Ethernet Module in an enclosure free of airborne dust, humidity, electric shock and vibration. The enclosure should prevent non-maintenance staff from operating the device (e.g. key or specific tools are required for opening the enclosure) in case danger and damage on the device may occur.*
- ✓ *DO NOT touch any internal circuit in 1 minute after the power is switched off. Do NOT touch any terminal when the power is switched on.*
- ✓ *Make sure the ground terminal ⏚ is correctly grounded in order to prevent electromagnetic interference.*
- ✓ *DO NOT place any heavy objects on the connection port of DOP series Extension Ethernet Module. Doing so may damage the product.*

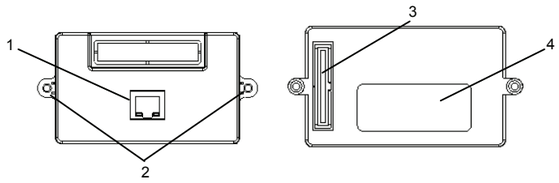
❶ Introduction

1.1 Model Explanation

DOP	-	EXLNHJ	1	AE
(1)		(2)	(3)	(4)

(1) Product Name	DOP: Delta Operation Panel
(2) Series	EXLNHJ: Extension Ethernet Module
(3) Version	
(4) Applicable HMI Series	AE: DOP-AE Series HMI

1.2 Product Outline



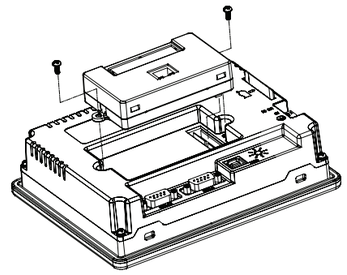
1. Connection Port for Ethernet
2. Direct Mounting Hole
3. Connection Port for Extension Module
4. Nameplate

❷ Function Specifications

Item	DOP-EXLNHJ1AE
Power Supply Voltage	DC 5V +/-10%, 1A (provided by HMI)
Interfaced Supported	RJ-45 with Auto MDI/MDIX
Number of Ports	1 Port
Transmission Method (Standard Conformance)	IEEE 802.3, IEEE 802.3u
Transmission Cable	Category 5e (TIA/EIA-568-A, TIA/EIA-568-B)
Transmission Speed	10/100 Mbps Auto Detection
Ethernet Protocol	ICMP, IP, TCP, UDP, DHCP, Modbus TCP
Noise Immunity	ESD (IEC 61131-2, IEC 61000-4-2): 8KV Air Discharge EFT (IEC 61131-2, IEC 61000-4-4): Power Line: 2KV, Communication I/O: 1KV Damped-Oscillatory Wave: Power Line: 1KV, Digital I/O: 1KV RS (IEC 61131-2, IEC 61000-4-3): 26MHz ~ 1GHz, 10V/m
Operation / Storage Environment	Operation: 0 °C~50 °C (Temperature), 10%~85% (Humidity), Pollution Degree 2 Storage: -40 °C~85 °C (Temperature), 5%~85% (Humidity)
Vibration / Shock Resistance	Standards: IEC61131-2, IEC 68-2-6 / IEC61131-2 & IEC 68-2-27

❸ Installation & Wiring

3.1 Installtion



❖ **Wiring Note**

1. Please avoid any conductive debris and tiny metal materials enter the Extension Ethernet Module when screwing and wiring.
2. Allow a minimum space of 50mm between the Extension Ethernet Module and other control devices, and keep the Extension Ethernet Module away from the high-voltage lines or any power equipment.

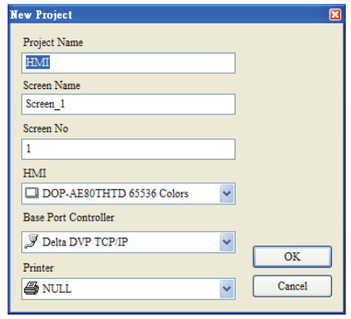
3.2 Caution

❖ **Environment**

1. DO NOT install the Extension Ethernet Module in a place subjected to corrosive or flammable gases, liquids, or airborne dust or metallic particles.
2. DO NOT install the Extension Ethernet Module in a location high temperature and high humidity (where temperature and humidity will exceed specification).
3. DO NOT install the Extension Ethernet Module in a location where vibration and shock will exceed specification.

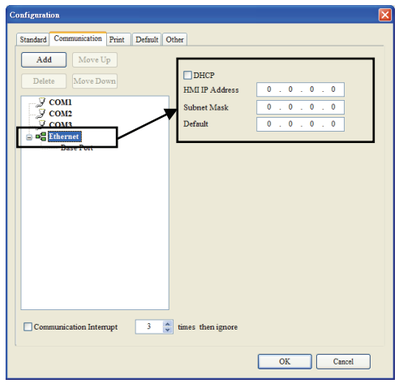
❹ Software Settings

❖ Activate Delta Screen Editor software program. Under Application Name choose a name to save. Under HMI choose a AE series HMI. Under Base Port Control choose Delta DVP TCP/IP.

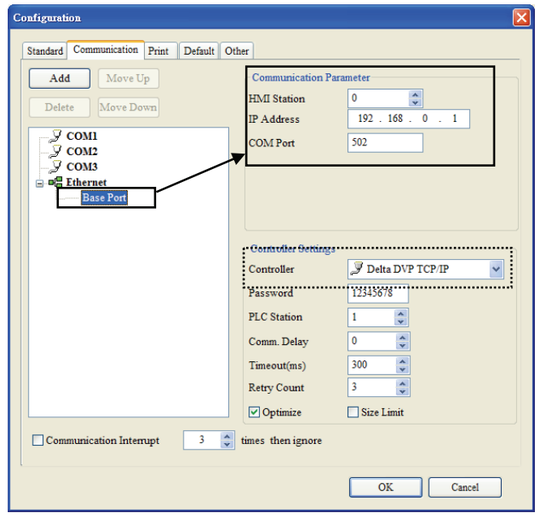


❖ Settings of DOP-EXLNHJ1AE

1. Select **Options > Configuration** and click **Communication** tab. The users can choose **Ethernet** option and set HMI IP address on right side of the window. If connecting to a DHCP Server, the users can select DHCP to get network configuration automatically when the DHCP console starts. If Static IP address is used, the users need to complete network configuration manually.



2. Clicking **Base Port** option can set IP address of the connecting controller on right side of the window. If the connecting controller is not Delta DVP series PLC, the users can change Delta DVP TCP/IP to Modbus TCP/IP by using the Controller drop-down list.



3. After completing all settings, please click Ok button to save the settings and start to edit the screen data of HMI.

NOTE

1) The content of this instruction sheet may be revised without prior notice. Please consult our distributors or download the most updated version at http://www.delta.com.tw/industrialautomation.